



AT HOME

training guide

Beginner to Advanced Level

INCLUDES 6 PROGRAMS

By Stephanie Buttermore, PhD



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WOMEN'S AT-HOME HYPERTROPHY PROGRAM

*Six Complete Programs for
Beginner to Advanced Lifters*

By: Stephanie Buttermore, PhD

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ABOUT THIS PROGRAM

This program is exactly what you need to get a quality and effective workout at home, while still being able to progress and build muscle! The six programs included in this book range from absolute beginner to advanced level lifters, so you can get effective at home workouts for many months to come!!

All of the programs included are lower body focused, however I've programmed sufficient upper body volume to attain a balanced and aesthetic physique. This hypertrophy focused program provides a way to build muscle and build strength all within the comforts of your home! In addition, in this document you will learn about training principles that will be relevant throughout the rest of your lifting career whether you stay at-home or move onto a gym.



You will not only learn how, but also why, with detailed explanation of training principles, functional anatomy and joint actions outlining the kinesiology behind lifting weights. This will equip you with the knowledge to understand why certain movements target certain muscles, and how to understand basic muscle actions. This program also includes all the essential principles that make up the core of exercise science as well as principles that you shouldn't spend too much time focusing on, as they are not paramount to your success.

Included in this program:

1. Beginner 3-day Bodyweight Full Body Program
2. Beginner 3-day Bodyweight & Dumbbells Program
3. Intermediate 4-day Lower/Upper Program
4. Intermediate 4-day Full Body Program
5. Advanced 4-day Lower/Upper Program
6. Advanced 4-day Full Body Program

These programs are designed for you to get comfortable with proper form and technique while building muscle. They incorporate exercises that can be done effectively, with minimal equipment. They follow exercise science guidelines, using the most up to date science and 23 scientific papers. Hopefully with this book, you can enjoy training all while learning some scientific training principles along the way!



ABOUT STEPHANIE

Stephanie Buttermore is a PhD who has transitioned from the world of academia for a world of sharing her life and passion for the things she loves. Using her YouTube and social media platforms, she entertains, and most importantly, educates on the scientific principles of training and nutrition, blending her years of reading and writing scientific literature with her passion for exercise and fitness.

EDUCATION:

- BS Micro/Molecular Biology University of Central Florida
- MS Medical Sciences, Women's Health, University of South Florida
- MS Medical Sciences, Pathology & Cell Biology, University of South Florida
- PhD Biomedical Sciences, Pathology & Cell Biology, University of South Florida

RESEARCH BACKGROUND

Dr. Buttermore's doctoral research focused primarily on early detection screening markers of ovarian cancer (OC) and the molecular mechanisms driving OC. Through her work, she discovered that a protein called Receptor for Hyaluronan Mediated Motility (RHAMM) was up regulated in OC cell lines, OC tissue and OC patient urine. She demonstrated that RHAMM could be used in conjunction with other screening modalities as a viable early detection urinary screening marker (patent). If you are interested in her work, her dissertation is available to read on her website (StephanieButtermore.com).

ABBREVIATIONS

AMRAP - As many reps as possible

BB - Barbell

BW - Body Weight

BMD - Bone Mineral Density

CVD - Cardiovascular Disease

DB - Dumbbell

MMC - Mind-Muscle Connection

RIR - Repetitions in Reserve

ROM - Range of Motion

RPE - Rate of Perceived Exertion

LISS - Low Intensity Steady State

KEY TERMS

AMRAP: “As many reps as possible” with good form. Often performed as a test to determine max strength

Concentric: The contracting (“positive”) aspect of the lift

Eccentric: The lowering (“negative”) aspect of the lift

Effort: How hard you are pushing the set relative to failure. Measured with RPE or %1RM

Frequency: How often you directly train a given muscle per 7 days

Hypertrophy: The growth of (muscle) tissue

Intensity: Effort and load

Load: The weight of the external resistance

Periodization: The organization of training over time

Primary exercise: Main heavy compound movements that involve a large muscle mass (for example: squats, bench presses and deadlifts)

Progressive Overload: The gradual increase of stress placed upon the body during exercise training. In training contexts, this generally involves progressively increasing some lifting parameter over time (usually weight or reps).

RPE: Rate of perceived exertion. A measure of how difficult a set was on a 1-10 scale, with 10 meaning muscular failure was achieved.

Secondary exercise: Compound exercises which involve less muscle mass (for example: cable rows, lunges, hip thrusts, military presses, pull-ups, etc.)

Tempo: The speed at which the lift occurs. Usually refers to concentric/eccentric speed.

Tertiary exercise: Isolation movements involving only one joint and primarily targeting a single muscle – these are usually used to isolate a specific, smaller muscle or to generate metabolic stress

Volume: Total amount of work performed. Usually approximated as sets x reps x load.

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FAQ's

1: How do I know if I am progressing?

Progress can be interpreted in many ways. It can be a matter of getting stronger, gaining muscle, undergoing body recomposition (building muscle while losing fat) or all three! Now this takes time and doesn't happen overnight. You want to think of your lifting career, which is likely going to be a very long time, as a marathon, not a sprint. It can be difficult to accurately determine if you are making visual progress day-to-day or even week-to-week. Taking physique progress photos every 4-6 weeks and comparing them side-by-side is a good way to detect visual differences that you simply wouldn't notice in the mirror. But ultimately, because of the relationship between strength gain and muscle gain, the main metric you want to use for tracking your progress is strength. If you're getting stronger, while using good technique, you're progressing. It is strongly recommended to log every workout either in writing (print the program out or use a separate notebook) or in an app, so you don't have to rely on memory to keep track of personal strength records.

2. I would like to lose fat. Is this a good program for me?

While hypertrophy programs, like this one, improve overall body composition by building muscle, this is not inherently a "fat loss" program. There are very basic nutrition and cardio recommendations included, but beyond that, your nutrition and cardio are totally up to you. For most, fat loss is a dietary matter, so if you are interested in losing fat, you would have to consult with a registered dietician or nutritionist. However, building muscle will definitely help you reach your fitness/physique goals so I wouldn't underestimate how much resistance training can supplement a good nutrition plan!

3. I can only train 3 days of the week? What should I do with the 4-day per week programs?

If you cannot complete all of the prescribed workouts, I would move the training session you cannot complete into the next week and so on. Do not outright skip workouts, always remember where you left off. If you skip workouts, the progression will jump too fast. **Same goes for those who are running the 3-day beginner programs and can only train 2 times per week.**



4. I can only train 2 days of the week? What should I do with the 4-day per week programs?

If you can only do 2 of the 4 workouts per week, this might get a bit tricky. I recommend to do the workouts in order, do not skip workouts, and move the workouts you did not do into the following week. I would also increase the amount of sets you are doing for every exercise to increase total weekly volume. I would start by adding one set to every exercise. I would NOT combine workouts as you might over-train or just accumulate too much “junk volume”. This is not ideal as I calibrated total weekly volume for the way I wrote the program, BUT you will definitely still get 2 great workouts a week as opposed to giving up and getting zero.

5. Should I do cardio? When?

See Cardio Recommendations page 30.

6. What does RPE mean?

See “RPE” page 27.

7. Should I eat in a caloric deficit, maintenance, or surplus while running this program?

See Nutrition page 29. Eating in a slight caloric surplus will yield the best results and best recovery, however, if your main goal is fat loss, eating in a caloric deficit will be necessary. As a beginner, you can continue to make strength and size progress while in a moderate caloric deficit and achieve body recomposition (lose fat and build muscle at the same time) if protein intake is sufficient (0.8-1g/lb bodyweight as a ballpark). As an *intermediate* level trainee, the likelihood of achieving substantial body recomposition is smaller, but still possible. So, all in all, a caloric surplus is recommended for optimal progress, but some progress can still occur at caloric maintenance and even in a caloric deficit.

8. I am not getting sore from my workouts. Is the program not working?

Muscle soreness is largely attributed to eccentric contractions¹ and contractions at long muscle length². Delayed onset muscle soreness (DOMS) isn't required for hypertrophy to occur, but the associated muscle damage might play a role in hypertrophy³. With that said, the main goal of this program is to build muscle and strength, not to get you feeling sore. In fact, reduced soreness over time indicates that your body is adapting and recovering, which is actually a good thing for continued progress. This is referred to as the "repeated bout effect", where soreness reduces with more repeated bouts of training.

9. I am getting very sore from my workouts. Should I still train if I'm sore?

You may experience increased soreness when you first begin the program because it is presenting a new stress to your body. Foam rolling (which is recommended in the warm up) can help reduce DOMS⁴ and increase ROM⁵, so if you are consistently getting sore week after week, consider adding a short 3-5 minute foam rolling routine at the beginning or end of the workouts. Otherwise, training while sore is not inherently problematic for muscle growth unless it puts you at an increased risk of injury. If you're having a difficult time getting into position for any of the planned exercises, or finding it difficult to complete a full ROM due to pain, *do not train*. Otherwise, in the case of mild soreness, perform a slightly longer warm up for each exercise and use your own discretion with avoiding injury being a top priority. One extra rest day will not set you back very far, but a serious injury will.

10. What if I don't have all the equipment needed for each exercise?

I do my best to provide alternatives to each exercise in the event you are missing any pieces from the recommend equipment section see page 12. If the alternative is something you also don't have the equipment for, email me at **stephaniebuttermore@gmail.com** if you cannot find the answer online and I will try to help you the best way I can.

11. Why isn't there much exercise variation from week to week?

Changing exercises from week to week is more likely to flatten out the strength progression curve. This is to ensure both progression by adding volume incrementally to these specific movements and mastery of these movements in terms of form and technique. The idea is to get better and better at the same movements by getting stronger or having better form. However, after you complete one of the training programs (after 8 weeks), you can induce a novel stimulus by moving on to another program provided in this PDF or look into the other programs I offer on my website: www.stephaniebuttermore.com/programs

12. What do I do after I finish the program?

You have the option of running back through the same program again with increased strength or move onto another program provided in this document. After running through all the variations this program offers, you may want to graduate to going to the gym and using one of my other programs. (www.stephaniebuttermore.com/programs)

13. What are the blank boxes in the middle of each program for?

They are for you to track your weights each week, so you can keep track of what you have been doing day to day and week to week. Of course, this will only work if you print the program out. The other option would be to keep a notebook and simply pencil in your lifts each week. Keeping up with this habit of tracking is going to be an extremely important part of your success with this program.

14. I find hip thrusts awkward. Is there an alternative exercise?

Yes, but give it your best effort first. The barbell hip thrust has been shown again and again to be highly effective as a glute builder for a reason. I highly recommend getting your own barbell pad for your 'at home' setup. [This is the one](#) I have. Alternatively, you can try using a dumbbell for added resistance or doing single-leg hip thrusts, which are also very challenging.

15. I recently had a breast augmentation surgery. Can I still do this program?

If you had a breast augmentation surgery within the past 4 weeks, it is wise to ask your surgeon if you are able to exercise. Typically, you will need to ease back into upper body training, and stick to the more stable lower body exercises. Tucking your elbows while pressing can alleviate discomfort caused from surgery.

16. I am pregnant. Can I still do this program?

If you are pregnant, you should first and foremost consult with your doctor if you are ok to weight train. From my understanding, if you have been weight training prior to becoming pregnant, then it should not be an issue during pregnancy. However, the exercises in this program may not be appropriate for you so please consult with your doctor.

Please direct all other questions to **stephaniebuttermore@gmail.com**. Please avoid directing questions about this program to social media as it is not a reliable means of making contact with me or getting the correct information. Please allow 3-5 business days for a reply.

17. What is the “ADD WEIGHT” column for?

This column indicates when you should add weight or resistance for that particular exercise. When you should add weight, it will say “ADD WEIGHT” in that column. Ideally you would add a small increment if you can (depends on your equipment). You do NOT have to add weight, it is just recommended based on the progression of the program (see Program Progression page 20). If the exercise uses load, add weight and if the exercise uses a resistance band, progress to a “heavier” resistance band.

18. Why isn't there an alternate exercise for every exercise?

I have provided a different exercise that uses different equipment to accommodate what you have in your home gym. Exercises that do not need equipment do not have an alternate.




EQUIPMENT RECOMMENDATIONS

Although this is a list of *recommended* equipment, this does not mean you *have* to have everything. To complete every single exercise in this program, to its entirety, this is the equipment list I recommend. However, I have supplied a column in the intermediate and advanced programs for alternative exercises that require more elaborate equipment. Below I have included links for affordable options, **NONE** of these links are affiliate links or sponsored. I found these links on my own, most links are for Walmart as I thought it would keep it affordable, but you can get these items wherever you like to shop!

BEGINNER

Body Weight Full Body:





- You do not need any equipment for this program if you want to use household objects for some of the “Weight” options.
- There is an “Inverted Row” in this program which can be done off of a sturdy dining table. Refer to [time stamp 15:54](#). However, I do recommend resistance door straps to manipulate the angle and for safety reasons.





EQUIPMENT	LINK
<ul style="list-style-type: none">• Door Straps for Inverted Row 	<ul style="list-style-type: none">• https://www.walmart.com/ip/Body-Weight-Fitness-Training-Kit-Resistance-Straps-Trainer-For-Body-Strength/123912765




Body Weight + Dumbbells Program:

EQUIPMENT	LINK
<ul style="list-style-type: none">• Dumbbells Upper body: 5lbs, 10lbs, 15lbs Lower Body: 15lbs, 20lbs, etc. 	<ul style="list-style-type: none">• https://www.walmart.com/ip/Weider-Rubber-Hex-Dumbbell-with-Knurled-Grip-25-lbs/54165259

INTERMEDIATE & ADVANCED PROGRAMS

EQUIPMENT	LINK
<ul style="list-style-type: none"> Dumbbells <p>Upper body: 5lbs, 10lbs, 15lbs Lower Body: 30lbs, 40lbs, 50lbs etc.</p> 	<ul style="list-style-type: none"> https://www.walmart.com/ip/Weider-Rubber-Hex-Dumbbell-with-Knurled-Grip-25-lbs/54165259
<ul style="list-style-type: none"> Monster Bands (multiple resistance levels) 	<ul style="list-style-type: none"> https://www.walmart.com/ip/XPRT-Fitness-Resistance-Bands-Pull-Up-Assist-Bands-Stretching-Powerlifting-Set-of-4/684136228?selected=true
<ul style="list-style-type: none"> Handle Resistance Bands (multiple resistance levels) 	<ul style="list-style-type: none"> https://www.walmart.com/ip/Mpow-12-PCS-Resistance-Bands-Set-with-2-Wide-Handles/528079752
<ul style="list-style-type: none"> Hip Circle or Resistance Loop 	<ul style="list-style-type: none"> https://markbellslingshot.com/products/hip-circle?variant=49821171722

EQUIPMENT	LINK
<ul style="list-style-type: none"> • Ankle Weights 	<ul style="list-style-type: none"> • https://www.walmart.com/ip/Valeo-Adjustable-Ankle-Wrist-Weights-10-lbs-Total-5-lbs-each-With-Adjustable-Metal-D-ring-And-Soft-Padding-For-Comfort/16537625
<ul style="list-style-type: none"> • Barbell Pad (optional for hip thrusts) 	<ul style="list-style-type: none"> • http://bit.ly/BarbellPadRed
<ul style="list-style-type: none"> • Barbell • Varying plate weights 	<ul style="list-style-type: none"> • https://bit.ly/2XjWgPg • https://www.walmart.com/ip/CAP-Barbell-Olympic-Bumper-Plate-Set-20-90-lbs/22558701
<ul style="list-style-type: none"> • Rack 	<ul style="list-style-type: none"> • https://www.walmart.com/ip/Progear-1600-Ultra-Strength-800lb-Weight-Capacity-Power-Rack-Cage-with-Lock-in-J-Hooks/429573691?selected=true

EQUIPMENT	LINK
<ul style="list-style-type: none"> Bench (optional: can also use your couch) 	<ul style="list-style-type: none"> https://www.walmart.com/ip/Weider-XR-5-9-Adjustable-Slant-Workout-Bench-with-4-Roll-Leg-Lockdown-and-Exercise-Chart/541757991
<ul style="list-style-type: none"> Yoga Ball (optional) 	<ul style="list-style-type: none"> https://www.walmart.com/ip/BalanceFrom-Anti-Burst-and-Slip-Resistant-Exercise-Ball/412326954?selected=true
<ul style="list-style-type: none"> Door Straps for Inverted Row 	<ul style="list-style-type: none"> https://www.walmart.com/ip/Body-Weight-Fitness-Training-Kit-Resistance-Straps-Trainer-For-Body-Strength/123912765



WHY WOMEN SHOULD LIFT WEIGHTS

Lifting weights should never be viewed as a chore or a burden, it should be viewed as an activity that can substantially improve your health, body and mind in so many different ways. Health and fitness can have a bad stigma of only eating chicken and broccoli while doing endless amounts of cardio, and I think it's FAR from that. While cardio certainly has its place (which we discuss shortly), there will be a lot of carry-over between lifting weights and cardio, as well as benefits mutually exclusive to lifting. To state the obvious, a muscular physique will be far more determined by lifting weights than it will from doing cardio. In order to transform your body, focusing on resistance training is a must. Getting stronger and improving your physique can massively impact how you see yourself not only in the mirror, but also who you are as a person.

Gaining strength can help with simple tasks like carrying groceries, moving boxes or furniture into a new home, picking up kids etc. Body composition is inarguably a good marker of your health/life expectancy. In a review from 2004, body fat was found to have a “J” shaped correlation with all-cause mortality (which means extremely low body fat is somewhat linked to all-cause mortality, then there's a happy-medium where all-cause mortality is at its lowest, then beyond that, it increases), whereas fat-free mass (quite literally anything that isn't fat: bone, muscle, water, etc.) has a reversed “J” shape association (meaning very little fat-free mass has a very high association with death, then as you gain muscle, the association becomes lower and lower until a certain point)⁶.

Looks aside, lifting will improve things we generally associate with “health” including; bone mineral density (BMD)⁷, decreased cardiovascular disease (CVD) risk⁸, decreased pain⁹, issues related to fibromyalgia¹⁰, improved sleep quality¹¹, and much more. Some of these benefits are exclusively important to women, so lifting should never be thought of as a men's-only activity.

From a psychological perspective, lifting weights can play a tremendous role in improving confidence, self-esteem and reducing anxiety. If you're lifting for the first time, it's perfectly normal to feel a bit lost and overwhelmed by the idea of resistance training. Overcoming this fear is actually the first step in overcoming the doubt you have in your mind. After you start training more and more, you will start to realize that everyone started off exactly where you are and everyone had to learn the basics at some point. Lifting weights definitely changed the way I view my body and changed my confidence forever, I only wish the same for you!

PROGRAM STRUCTURE

This book contains 6 separate programs with built in progressions:

1. Beginner 3-day Bodyweight Full Body Program
2. Beginner 3-day Bodyweight & Dumbbells Program
3. Intermediate 4-day Lower/Upper Program
4. Intermediate 4-day Full Body Program
5. Advanced 4-day Lower/Upper Program
6. Advanced 4-day Full Body Program

BEGINNER

The beginner programs were designed to get your feet wet with strength training, increase confidence with your body, coordination and to gain bodily awareness. Although maximizing your strength and body composition will generally require a gym membership or a well-equipped home gym, you can make very rapid progress with at-home workouts. Since you're just getting familiar with taking your body through space in a controlled fashion, you'll want to start off with an emphasis on mastering your form, not getting as strong as possible in the shortest period of time. You will take your body through the primary ranges of motion (upper body horizontal push, upper body vertical push, upper body horizontal pull, upper body vertical pull, squat movement, horizontal hip extension, vertical hip extension), which will hit the most amount of muscle per exercise. The program will start off more manageable, with your body being placed in a mechanically stronger positions and with the use of assistance to get comfortable going through movements before challenging individual muscle groups. After you get a good feel for form, you will be able to follow to the 2nd tier within the beginner bodyweight-only program.

The beginner + dumbbell program will be a step up for those of you who have access to some dumbbells in your house, but nowhere near a complete gym. This program will be structured more "conventionally", with an emphasis on using heavier weights as you're able to complete the given sets x reps with ease. After running this program for a few months, you should be able to start venturing off to more an apartment complex gym or adding more equipment to your at-home gym.





INTERMEDIATE

The two intermediate programs are designed to push you extremely hard once you've already mastered form, feel, and you've finely tuned the RPE scale (which allows you to know how hard you're able to push yourself). Both the lower/upper and full body programs will provide a large hypertrophy stimulus through progressive overload and utilizing the mind-muscle connection. While higher frequency and volume tend to be favorable for hypertrophy, you're only going to be able to respond to what you're able to recover from. Both programs were included for you to be able to experiment to see which style of program you're better able to recover from while still pushing yourself appropriately hard (which is vital for hypertrophy). If you are still relatively new to weight training, you should still see some strength gains but the program will mostly focus on hypertrophy (building muscle).

ADVANCED

The two advanced programs included in this document are for those who have mastered and completed the intermediate programs (or have been training consistently for 2+ years) and want to induce a more challenging stimulus. These are hypertrophy focused programs but have more emphasis on strength as well. Many of the exercises will be similar to the intermediate programs but the progression will be more intense and follow a triple progression (see Program Progression for more explanation on this).

To run the advanced programs, you should be very familiar with the RPE scale and how to accurately judge the RPE of each set with ease. Additionally, using the RPE scale gives us the added advantage of being able to manipulate the difficulty by using a true RPE, so you should be pushing yourself sufficiently hard. This might require investing in more weight, but shy of training in a full gym, you will need to progressively overload to make progress. The exercises will be staying the same from week to week, which will allow you to focus on getting stronger as you progress through the program.

PROGRAM PROGRESSION

As mentioned, the beginner bodyweight-only program will utilize progression by starting you in a mechanically stronger position to a mechanically weaker position. Rough guidelines have been explained in the program, as the adaptation will be specific to the exercise. It can be a bit tricky to understand when you should attempt to progress to a more challenging position of the same exercise. As a general rule, you want to feel 100% confident in your form (you're not wobbly, you're starting to feel like the movement is your default and you don't need to actively think about maintaining good form nearly as much) before attempting to make the exercise more difficult. Although there will be a large variance in individual response, it's reasonable to expect to run the first tier variations for around 2 months if you're very new to strength training.

For all the remaining programs contained in this book, single, double, and triple progression will be utilized, since you have access to weights. When it comes to progression you can either change one or multiple of 3 variables: sets, reps and/or load.

Single progression is progression in just *one* of these variables (sets, reps or load). Double progression is changing 2 of the 3 variables, and in this case it is adding a rep *and* increasing weight. The majority of exercises will utilize double progression, as it's a very slow but steady way to ensure you're striking the balance of pushing yourself as hard as possible without sacrificing form. Triple progression is altering *all* 3 components of the volume equation: increasing sets, reps, and load. This will only be utilized in the compound exercises (squat, deadlift, bench press) since they have higher progressive overload potential, but generally take more time to master.

EXAMPLES OF PROGRESSION

Examples are easier to conceptualize so let's look at a few examples.

Single progression: Push-up example: 3 sets x AMRAP x bodyweight. Since your bodyweight is relatively consistent, it's not something which we can deliberately change for the purpose of a ~60-minute lifting bout. You will be doing 3 sets each week, aiming to do as many reps as possible. Simply try to do more push-ups on each set (or even more push-ups across all 3 sets total). This is a bit more of an "aggressive" way to progress.

Double progression: Goblet squat example: 4 sets x 4-6 reps x 50lbs (example weight). Now this is just an example using 50lbs to illustrate the point (squat the weight which is appropriately difficult for you). On week 1, you will start with 4 sets of **4 reps** with 50lbs. Week 2 you will add a rep to each set, so it will be 4 sets of **5 reps** with 50lbs. Week 3 you will do 4 sets of **6 reps** with 50lbs. On week 4, you will increase the **weight** by as little as possible and start at the smallest rep amount again going back to 4 reps with this new

higher weight. This will leave you at 4 sets of **4 reps** with **55lbs** (example), and you will repeat this for the duration of the program. You will continue the range of reps until it is time to add weight, start at the lowest rep and add reps with the same weight until it is time to add weight etc.

Simplified:

Goblet Squat: 4 sets x 4-6 reps

(Ex. starting weight: 50lbs dumbbell or kettlebell)

Week 1: 4 sets x 4 reps x 50lbs

Week 2: 4 sets x 5 reps x 50lbs

Week 3: 4 sets x 6 reps x 50lbs

Add weight

Week 4: 4 sets x 4 reps x 55lbs

Week 5: 4 sets x 5 reps x 55lbs

Week 6: 4 sets x 6 reps x 55lbs

Add weight

Week 7: 4 sets x 4 reps x 60lbs

Week 8: 4 sets x 5 reps x 60lbs

Week 9: 4 sets x 6 reps x 60lbs

Add weight

Week 10: 4 sets x 4 reps x 65lbs

Triple progression: Dumbbell Romanian Deadlift example: 2-3 sets x 4-5 reps x 60lbs (two 30lbs dumbbells, example weight). Triple progression is best used for the advanced section of the program. On week 1, you will do **2 sets of 4 reps** with 60lbs. Week 2 you will do **3 sets of 4 reps**. Week 3 you will do **2 sets of 5 reps**. Week 4 you will do **3 sets of 5 reps**. Week 5 you will **increase the weight** to 70lbs (two 35lbs dumbbells), then start the progression back with the lowest amount of sets and reps in the prescribed range, then increase another set, until you reach the highest amount of sets in the range and then you increase the reps and then when you reach the max reps in the range you will add weight. After adding weight you start over with the lowest sets and reps and add from there again.

Simplified:

Dumbbell Romanian Deadlift: 2-3 sets x 4-5 reps

(Ex. starting weight: 60lbs)

Week 1: 2 sets x 4 reps x 60lbs

Week 2: 3 sets x 4 reps x 60lbs

Week 3: 2 sets x 5 reps x 60lbs

Week 4: 3 sets x 5 reps x 60lbs

Add weight

Week 5: 2 sets x 4 reps x 70lbs

Week 6: 3 sets x 4 reps x 70lbs

Week 7: 2 sets x 5 reps x 70lbs

Week 8: 3 sets x 5 reps x 70lbs

Add weight

Week 5: 2 sets x 4 reps x 80lbs

Week 6: 3 sets x 4 reps x 80lbs

Week 7: 2 sets x 5 reps x 80lbs

Week 8: 3 sets x 5 reps x 80lbs

Add weight

Week 9: 2 sets x 4 reps x 90lbs

Week 10: 3 sets x 4 reps x 90lbs

While triple progression is actually slower than double and single progression, it's more realistic to adhere to over a longer period of time once you're at the intermediate level.

These programs are intentionally designed to be run for 8 weeks before advancing to another program. This ensures you are comfortable with your form on the exercises, have developed coordination and increased strength to progress to the next level. The intermediate and advanced programs utilize more advanced techniques (which are only beneficial when everything else is perfectly in place: form, accuracy of RPE, recovery, etc.). While this style of programming is very difficult, it's important to not run yourself into the ground with it, so once you finish an 8 week program, it's time to move on to the next! If you choose to rerun the same program, I would run a proper "deload" (training with significantly less intensity) for a week before restarting.

TRAINING PRINCIPLES THAT ARE IMPORTANT

Now that we've establish just some of the reasons why lifting is so important, let's look at what exactly makes a good workout and what doesn't, because not all workouts are created equal.

Technique (also see video demonstrations):

Technique will always trump how much weight you can lift...ALWAYS. So *never* sacrifice your technique just to move more weight. You can think of lifting weights as contracting your muscles against gravity in a particular way. With increasing load, your body will want to move into certain positions to make the exercise easier, but this will put your body in a vulnerable position (for example: your lower back will tend to "round") but in doing so you will be at a higher risk for a lower back injury. The proper technique on certain lifts will feel awkward and even incorrect at first, but developing your technique early in your lifting career will save yourself from injury, make exercises more efficient, and will keep your body pain free.

Progressive overload

Progressive overload is one of the most important components of your workout plan. To put it simply, progressive overload will manifest itself as adding more weight to an exercise, increasing the amount of reps you do in one set, or increasing the amount of sets you perform in a workout, all while keeping your technique the same. Refer to the "Program Progression" section of the program to read more, but at first simply focusing on getting your form as solid as possible will improve your motor control, allowing you to lift heavier weights. Progressive overload will be a primary focus as the research is very clear on its influence on muscle growth¹².

Mind-muscle connection

The mind-muscle connection (MMC) is a bit of an advanced technique that takes time to develop, but it's something to be aware of. MMC is simply focusing on squeezing a particular muscle group rather than just thinking about going through the motion. In a study, this has been shown to make a muscle group grow faster even when load is equated for¹³. If you are a beginner, I wouldn't focus too much on this, the priority will be on form and external cueing.

But if you are an intermediate to advanced lifter, then MMC is something you might be familiar with. If you have nailed down technique, MMC is great to use during isolation exercises, which target one muscle group at a time. That way, when you are performing the exercise you can really focus on squeezing and contracting that muscle. MMC is not recommended for compound exercises (like squats) because you are working too many muscle groups simultaneously, so it's better to focus on external cueing rather than internal cueing on compound exercises.

TRAINING PRINCIPLES THAT ARE NOT IMPORTANT

Soreness (DOMS: Delayed Onset Muscle Soreness)

Soreness is largely caused from muscle damage (actual micro-tearing on your muscle fibers), which is a byproduct of your muscle being stretched with load¹⁴. Muscle damage *might* be a factor of hypertrophy, so it is certainly not a bad thing to get sore, but it shouldn't be the goal of your workout. If you aren't getting sore, that doesn't mean you aren't pushing yourself hard enough – the more you lift, the less sore you will actually get which is called the “repeated bout effect”. I have an entire video (https://youtu.be/Ut_4C_5CNbg) on soreness and whether or not you should train sore so check it out if you are interested in learning more.

Keeping your heart rate high/sweating/heavy breathing

Lifting weights requires a high output of energy for a relatively short period of time (typically between 10-45 seconds in a set). Your heart rate likely won't be elevated very much at all, but this doesn't mean that your muscles aren't working. In order for a muscle to grow, it needs to be pushed to a close degree of failure¹⁵. This will require you to take longer rest periods between each set. Doing things like jumping squats, kickbacks, push-ups, etc. will decrease your energy, thus not allowing you to focus on performing the most amount of reps possible on your actual sets. For this reason, I strongly advise against circuit training if building muscle and improving your physique is your primary goal. Similarly, a good workout generally consists mostly of lifting weights. If you want to do cardio, do it after your workout after you hit the weights or on a rest day.

Switching things up

Exercise variety makes lifting fun, interesting, and can break the monotony up but with that being said, it's important to master the skill component of lifting before consistently switching your program around or you won't allow your body enough time to actually get comfortable with your current program. For more long-term lifting, there will be certain exercises that will be staples in your program, and others that you rotate in and out. From a physiological perspective, your muscles don't know what exercise you are doing, they are either being loaded or not, so “muscle confusion” isn't a real thing.

PROGRAM PRINCIPLES:

Frequency

Simply put, frequency refers to how often you are hitting the same muscle group each week. There's a lot of myth surrounding how often you are able to hit a muscle group within a week. The research has very definitively shown that hitting a muscle group at least 2 times per week for ideal muscle growth¹⁶. Higher frequency *might* be better for hypertrophy, but since all research must equate for volume, it is hard to say whether or not this is the case. With this in mind, each program will target your lower body a minimum of 2 times a week.

Volume


Volume is likely the second most important determinant of hypertrophy¹⁷. Volume can be seen as sets x reps x weight, although it is not needed to calculate this out for your workouts. I think it's important to note that there might be a threshold beyond which more volume is actually counterproductive¹⁸, so sticking with a bit more of a moderate approach is best for now. As you gain strength, your volume will be increasing by default, so there's no need to tack on more sets or more reps. Strength gains come very rapidly in your first few years (especially after you have form locked in), so simply focusing on that will guarantee results.

Effort

Rate of Perceived Exertion (RPE) (see page 27) will be the scale at which we use to roughly calculate effort. A sufficient amount of fatigue in each muscle group is required to optimize hypertrophy, which is why the effort will always be above 50% of as much as you can do. As you will notice, the beginning each program starts with slightly lower effort, then it gradually increases throughout the program. This will ensure you are giving your body time to adapt without running yourself into the ground.

Rest Periods

Rest periods are prescribed in the program portion and are calibrated based off of the intensity of the exercise that you are doing. Taking longer rest periods will allow you to use more weight and overload movements at a quicker rate compared to short rest periods¹⁹. With that being said, rest periods should correlate with how difficult an exercise is. Using deadlifts or stiff leg RDLs as an example – you should feel like you need to take ~3 minutes of rest between sets in order to match your strength/intensity on the previous set. If you can replicate your strength/intensity with just 45 seconds rest between sets, you likely aren't pushing yourself hard enough on each set. This can actually be another great factor towards calculating your RPE (the more rest time you require after a set, the higher the



RPE). However, for smaller isolation movements, you can work quite quickly, as they won't be as systemically fatiguing due to less overall muscle groups being used.

Recovery

Recovery is often the factor which gets left out. While it is not technically an aspect of your program, it will serve as a general checklist to ensure you aren't doing too much when you are weight training. While you can still workout when you're sore, your workouts won't be very effective if you are so roasted that you are barely able to walk. If this is the case, you might need to reconsider RPE, training frequency, etc.

Recovery not only looks at what you are doing inside the gym, but also outside the gym. Things like sleep, nutrition, supplementation, other physical activity, etc. will play a massive role in your body's ability to bounce back for your next training session. If you are untrained (under 3 months of consistent training), you will likely feel extremely exhausted as your body adjusts to the level of stress you are putting on it.

RATE OF PERCEIVED EXERTION (RPE)

(does not apply to Beginner Body Weight Program)

Rate of perceived exertion (RPE) is a relatively simple concept, but it takes some practice and is a skill you will get better at over time. The more you mentally calculate your RPE, the better you will become using this scale. Essentially it is a mental tool you will use to determine what weight to use with each exercise. I can't prescribe an exact weight amount for each exercise because it will vary from person to person. It is a very important tool which will set you up for long term success during your at-home training and eventually into gym training. It will not only apply to actual load, but also when you are using varying levels of resistance bands. RPE will help you gauge what you need to use to accomplish the set, at the appropriate level of intensity.

And of equal importance, it will also ensure you are fully recovering from each session. You will be exerting yourself at different levels throughout all of the programs because you can't go balls to the wall every single session, you will burn out and you won't be able to recover before your next session. RPE will allow me to tell you when to go easy and when to go hard.

The scale of RPE goes from 1-10, but for this program, we really only have to worry about 6-10 (as anything below RPE 6 is incredibly difficult to detect). From a simple perspective, you can see RPE as a percentage of your maximal exertion (RPE 6 = 60% of failure, RPE 7 = 70% of failure, RPE 8=80% of failure, RPE 9= 90% of failure, RPE 10= 100% of failure), RPE 10 is actually training until you can't complete another rep or your form breaks down significantly. You can also see this as the inverse of reps in reserve, or RIR. This means that an RPE 9 is saving 1 rep in the tank (RIR 1), an RPE 8 is saving 2 reps in the tank (RIR 2) etc.

If you're VERY new to the weight training, you will have a difficult time discerning RPE and RIR as you learn the form of everything. Err on the side of caution when you're figuring out how much weight you should be using, as form will inevitably change the heavier you go. After your set, ask yourself how many reps you think you could've gotten before you ended the set. This will seem very arbitrary and vague at first, but after doing it for several months, you'll start to get a very good sense of what it means.

RPE will give you guidance for load selection, as it will guide you to the "sweet-spot" between not pushing yourself hard enough and exhausting yourself too much (which isn't a good thing).

RPE EXAMPLE

The best way to illustrate this is to use an example. Let's say you're able to squat 100lbs for 5 reps, and you feel like you can only get 1 more rep with good form; this would be an RPE 9. After a few weeks of doing this, you might squat 100lbs for 5 reps and now are able to get 2 more reps with good form. This means this weight is **NOW** an RPE 8 because you have gotten stronger. This program will gradually increase the RPE each week for most exercises, and in some cases this will be done by increasing sets, reps or load to make it more challenging (see program progression). It's important to note that the same RPE will feel different depending on the exercise, rep range, etc., but the same principles apply.

Since we're talking about exertion, it brings up the question of why does it actually matter? Well, really digging into the science of how a muscle grows, your nervous system sends a signal to your muscle telling it to contract. Your body wants to be energy efficient and use the appropriate amount of force to perform a certain task (imagine using all of your strength to lift a purse off the ground). When you're lifting weights, you will start off recruiting smaller muscle fibers (slow twitch muscle fibers), then gradually call upon larger muscle fibers (fast twitch) as the task becomes increasingly strenuous. The larger muscle fibers have more potential to grow than the smaller muscle fibers, so it's important to train close to muscular failure for hypertrophy, which is precisely why we won't do anything below an RPE 6.

Table 1: Rate of Perceived Exertion and Corresponding Repetitions in Reserve.

RPE Rating	Description of Perceived Exertion/ RIR
10	Max Effort to Failure (0 Reps in Reserve)
9	1 Repetition in Reserve
8	2 Repetitions in Reserve
7	3 Repetitions in Reserve
5-6	4-6 Repetitions in Reserve
3-4	Light Effort
1-2	Little to No Effort

Adapted from Zourdos et Al. 2015²⁰



NUTRITION RECOMMENDATIONS

Nutrition is obviously a massive component to your physique and health. Now I am not an RD, so I highly recommend talking to your doctor about making significant dietary changes. However I do feel comfortable making some general dietary recommendations. I generally recommend a moderate protein diet (around .8g-1.0g/lb of bodyweight per day)²¹. For example, if you weigh 120 lbs, aim to eat 96g to 120g of protein per day. Beyond that, you will gain more muscle eating in a slight caloric surplus, but it is not necessary if you are a beginner, but might be more important the more advanced you are.. There are numerous calculators out there, but I think it's important to note that is no magical macronutrient ratios for you. There are, however, macronutrient ratios which will allow you to make progress while being able to enjoy food. If your goal is to build muscle and lose fat, you can do this without cutting out whole macronutrients, so NEVER eliminate carbohydrates or fats entirely as this will hurt your performance while training.

Ultimately, building muscle will improve global body composition; so keep muscular gains at the forefront. Carbohydrates are good for you from a body composition perspective and a health perspective. Carbohydrates can also give you energy, so I recommend eating carbs before and after you train. If you're eating a very low carbohydrate diet to begin with, introducing carbs back into your diet will likely make you gain water weight and glycogen weight. Don't panic, glycogen (the stored form of carbohydrates found in your muscle and liver) will actually make you appear more muscular. Also don't cut out or lower fats too much because fats are extremely important, (especially for female hormonal health, along with many other physiological process) so make sure not to make any drastic dietary changes regardless of your lifting advancement level.

Like I said, I am not an RD or nutrition coach so if you need more dietary guidance I would recommend seeking out a reputable RD or health professional who specializes in nutrition.

CARDIO RECOMMENDATIONS

As previously mentioned, cardiovascular health is important independent of your physique. Cardiovascular health generally gets associated with endless hours of walking on the treadmill with a steep incline. This can be very counterproductive for physique improvements and potentially even factors of overall health and well-being. With that being said, the answer shouldn't be to only lift and do zero cardio. Three 30-minutes low intensity steady state (LISS), or keeping your heart rate between 105-130 beats per minute can provide a ton of benefits without eating into your strength gains and busy schedule. **Ideally, cardio should be done after lifting weights to ensure you are entirely fresh when you are lifting weights.** The actual modality of cardio doesn't actually matter as much as people tend to think. As we will discuss in the next section, cardio can be integrated into a well-rounded warm-up routine.






WARM UP

Purpose

The warm-up is a very important part of your workout. This is simply a way of elevating your heart rate and a way to start sweating. A proper warm-up shouldn't take that long, and it should, well...warm your body up. There are 2 main things a warm-up should do: elevate your body's core temperature and prime your body to maximally exert yourself while minimizing your risk for injury. Warm-ups will significantly depend on the individual, but it's a good idea to start out doing the full routine, then only modifying it when you have a better sense of how your body works.

Low Intensity Steady State (LISS) cardio will serve the purpose of elevating your body's core temperature, which is actually the primary factor reducing injury risk. There's no one correct way to do LISS cardio, so you have freedom to skew towards your preferences. If you have cardio equipment at home (a treadmill, elliptical, stationary bike, etc.), using that at a moderate speed with low-to-moderate resistance should provide enough of a stimulus to get your heart rate up towards ~110-135 beats per minute (although there's no need to fixate on a specific heart rate). This small bout shouldn't make you out of breath, winded, or on the floor gasping for air. You should feel your body starts to feel a bit looser and physically hotter.



Foam rolling will help to acutely increase your range of motion (ROM)²². Now this will be very individual, as many people don't need any foam rolling (or dynamic stretching) to achieve full range of motion, especially the ones utilized in this program. If you don't have a foam roller, lacrosse ball, "peanut" (two tennis or lacrosse balls placed into a sock), or you can skip this section entirely if you don't feel stiff or limited in your ROM. This will be moderately painful, but you want to apply tension onto areas which you feel "sliding" around (you're essentially giving yourself a massage with the aforementioned equipment).

Dynamic stretching will get your body comfortable going through the ROMs in your actual lifting. The name of this can be a bit misleading, as you don't want to focus on stretching individual muscle groups, but instead, think about taking the joint itself through a progressively larger ROM the more you warm-up.

Common mistakes/misconceptions about warming up

Now that we know the intended purpose of a warm-up, let's look at some common mistakes and misconceptions. A warm-up is not a full cardio session. While cardio can help to serve as a means of raising your body's core temperature, which is correlated with improved performance²³ you shouldn't be fatiguing yourself with excessive amounts of cardio.

Similarly with cardio, a warm-up for lifting isn't an entire yoga session. While mobility and flexibility are important for lifting, too much mobility (how much your joint can freely move) will increase your stability (how much you can resist joint movement). If your stability isn't adequately caught up to your mobility, you can be at an increased risk for injury. That isn't to say yoga itself is bad for lifting (in fact, it can be a great compliment to lifting), it just shouldn't be done right before a full training session.

How this warm up differs from "warm-up sets"

Now that your body is both at an appropriate core temperature and your mobility is improved, you will move onto your warm-up sets. Warm-up sets differ from the rest of your warm-up, as these are actual sets of the given exercise, but you will be performing them with significantly lighter weight than your workout sets. This will give your body time to focus on keeping your form as clean as possible while also ensuring you aren't loading the muscle too quickly.

*Ascending sets with your first exercise of the day will only apply if you're utilizing an **intermediate or advanced program** with barbell and dumbbell exercises (assuming you have the appropriate weight). This is the time to practice getting your form down and to get a general sense of how heavy you'll want to go for your working sets. If you're doing primarily bodyweight exercises, you'll need to modify exercises to make them slightly easier to be able to ease your way into pushing your sets hard. A good general rule of



thumb to follow for ascending sets is as follows:

1x8: 35% of 1RM

1x5: 50% of 1RM

1x3: 65% of 1RM

1x1: 70% of 1RM

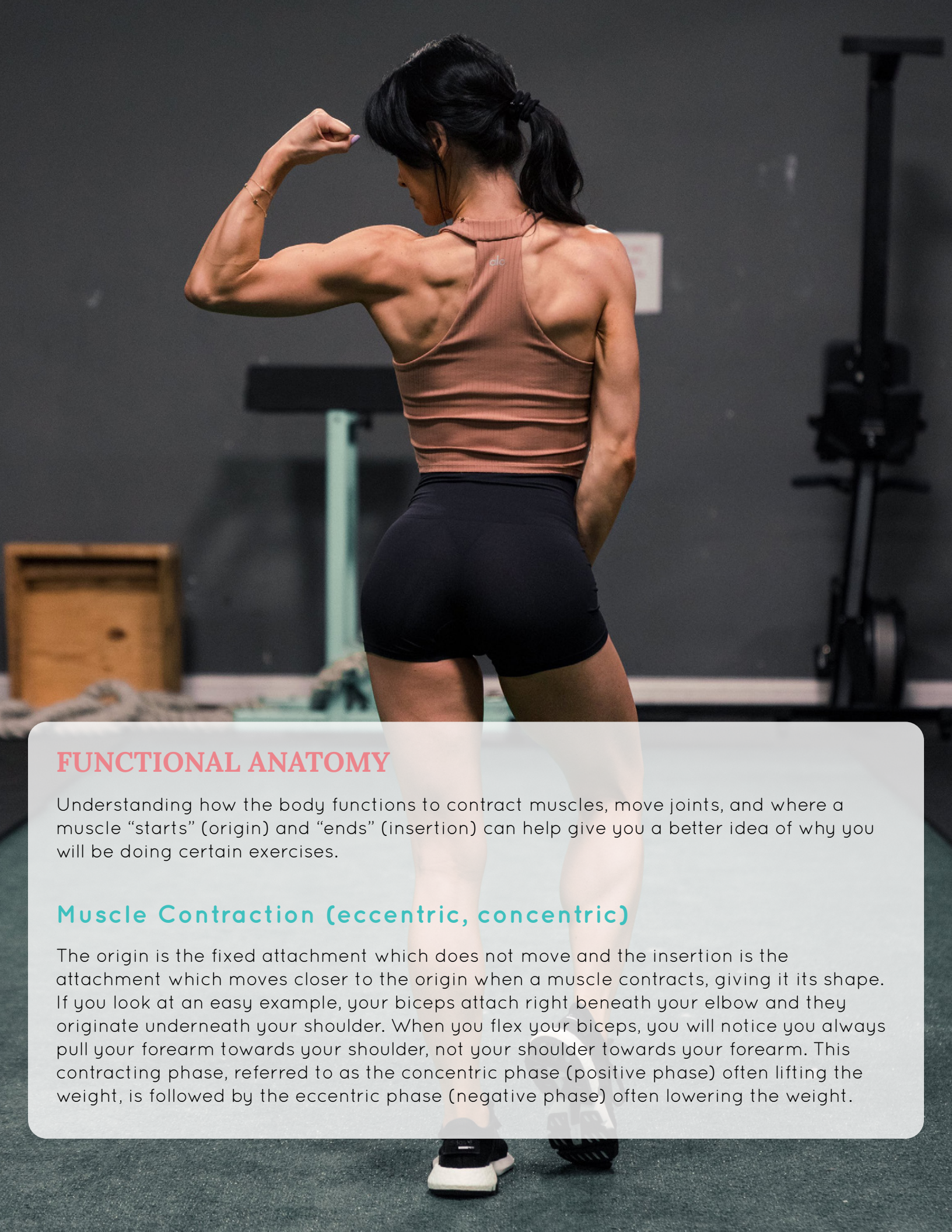
How to determine your 1 rep max (1RM)

*This will only apply to intermediate and advanced programs.

To use a %1RM approach, you must know (or at least have a rough idea) of what your 1 rep max is for that exercise. Of course, not everyone will know what their 1RM is at any given time. It may be tempting to simply test your 1RMs – lift as heavy as possible with good form for one repetition. Even though this seems like a good way to do it, testing one rep maxes can be unnecessarily risky, and there is a simpler options to give you a ballpark estimate of this number.

Plug the results of a recent “tough set” taken close to failure in the 6 or lower rep range into this calculator, which will estimate your 1RM: <https://exrx.net/Calculators/OneRepMax>

Example: I did a “tough set” (it was hard) set of squats. I did 5 reps with 185lbs. Plugging 185lbs and 5 reps into the calculator, it says my squat 1RM is 208lbs.



FUNCTIONAL ANATOMY

Understanding how the body functions to contract muscles, move joints, and where a muscle “starts” (origin) and “ends” (insertion) can help give you a better idea of why you will be doing certain exercises.

Muscle Contraction (eccentric, concentric)

The origin is the fixed attachment which does not move and the insertion is the attachment which moves closer to the origin when a muscle contracts, giving it its shape. If you look at an easy example, your biceps attach right beneath your elbow and they originate underneath your shoulder. When you flex your biceps, you will notice you always pull your forearm towards your shoulder, not your shoulder towards your forearm. This contracting phase, referred to as the concentric phase (positive phase) often lifting the weight, is followed by the eccentric phase (negative phase) often lowering the weight.

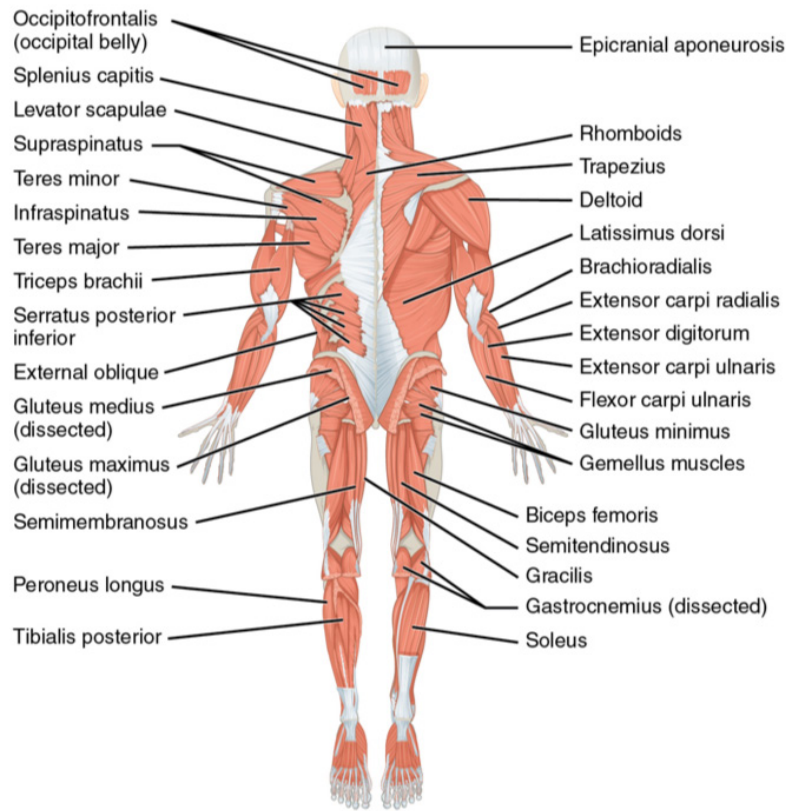


Figure 1a: The Main Posterior Muscles (Image by [OpenStax](#))

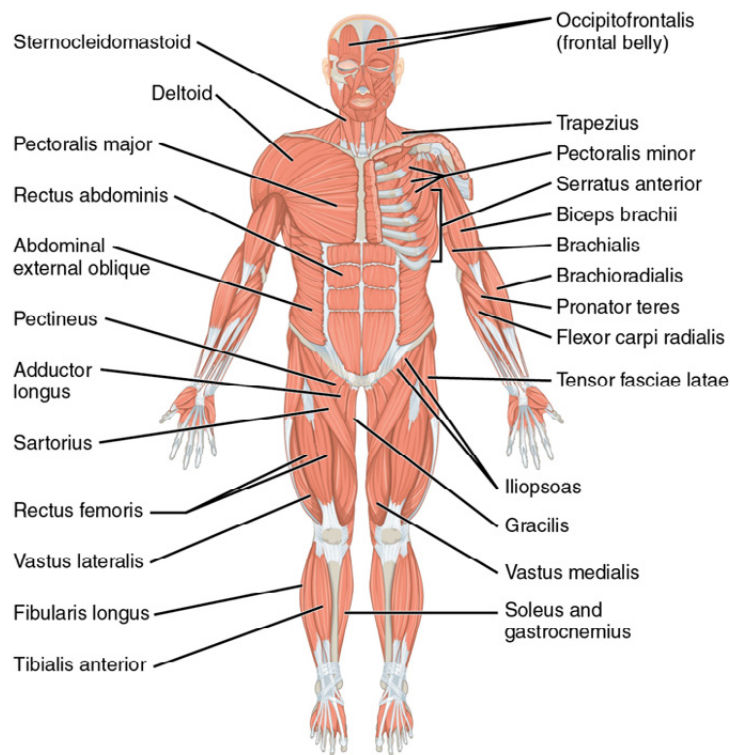
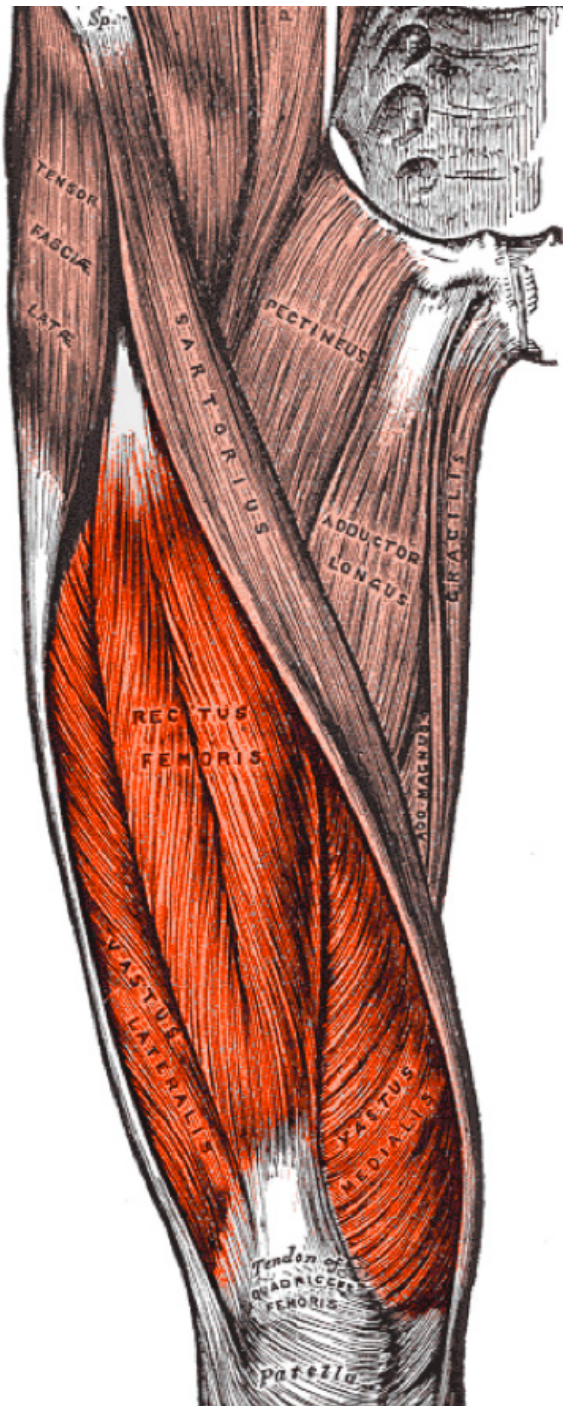


Figure 1b: The Main Anterior Muscles (Image by [OpenStax](#))

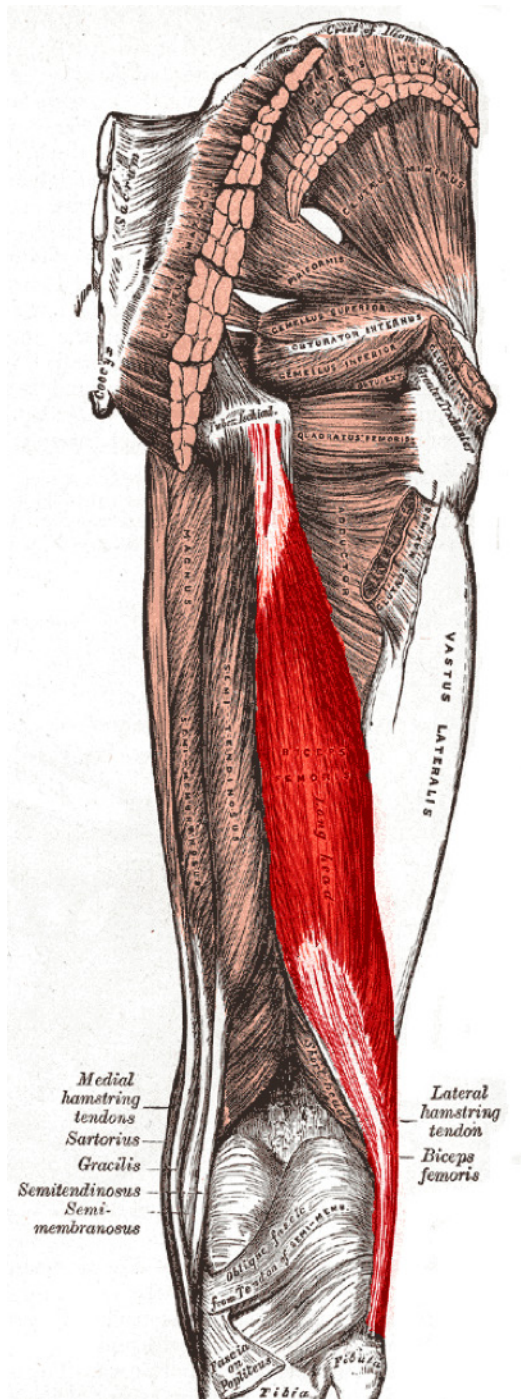


Quadriceps: The quadriceps (“quads” for short) are comprised of four muscles, often referred to as “heads”: the vastus lateralis (“quad sweep”), vastus medialis (“tear drop”), rectus femoris (the middle portion of your upper thigh), and vastus intermedius (which runs underneath rectus femoris). The quads act to extend the knee, taking the leg from a bent position to a straight position. Each muscle of the quad has its own unique insertion which we won’t worry about too much here. Just remember that the main action of the quads is to extend (straighten) the knee.

Origin: The vasti muscles originate on the body of femur (“thigh bone”). The rectus femoris originates on the ilium of the “hip bone”

Insertion: Tibial tuberosity

Figure 2: Quadriceps Anatomy



Hamstrings: The hamstrings are actually a complex of four muscles: semimembranosus, semitendinosus, and biceps femoris (which consists of a long head and a short head). The hamstrings collectively act to both flex the knee (take the leg from a straightened position to a bent position, as in a leg curl) and extend the hip (pushing your hips forward, as in a deadlift).

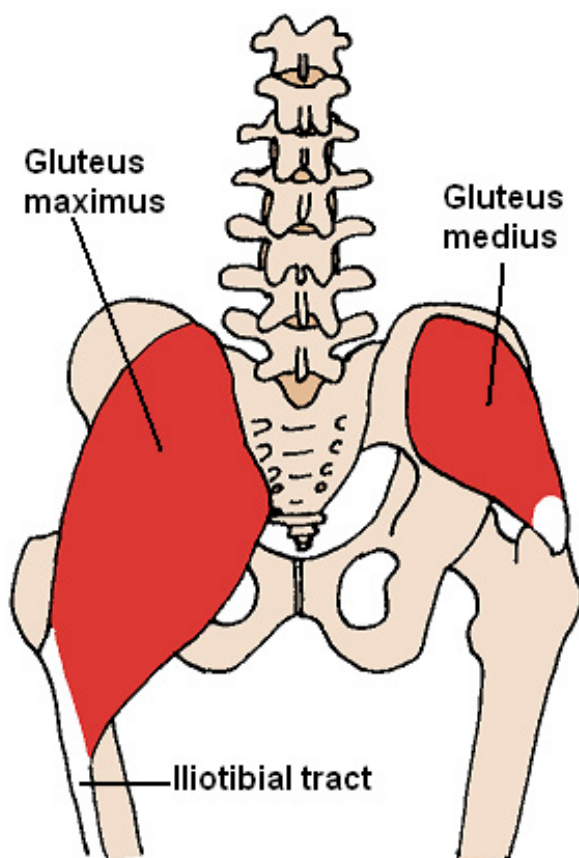
Origin: The semitendinosus, semimembranosus, and long head of the biceps femoris originate on the ischial tuberosity. The short head of the biceps femoris originates on the linea aspera.

Insertion: The semitendinosus and semimembranosus both insert on the tibia, while both the long and short heads of the biceps femoris insert at the fibula.

Figure 3: Hamstrings Anatomy

Gluteals: The gluteals (or “glutes”) are also a complex of muscles consisting of the gluteus maximus, gluteus medius, and gluteus minimus. As the name suggests, the gluteus maximus is the largest of the three, followed by the gluteus medius, and the smallest gluteus minimus. The gluteus maximus has multiple origins including the pelvis, sacrum, coccyx, and thoracolumbar fascia and multiple insertions including the upper femur and IT band. Because of this, it is able to perform a wide variety of functions, but primarily:

- hip extension (push your hips forward)
- hip abduction (move your thigh away from the midline)
- hip external rotation (rotating your thigh bone outwards)
- posterior pelvic tilt (tucking your butt “in”)



The smaller glute medius still occupies a hefty portion of the rear hip musculature and functions primarily as a stabilizer during dynamic movement and as a hip abductor. It originates on the pelvis and inserts on the femur. It is most effectively trained with exercises that require a high degree of stability, especially unilateral movements such as walking lunges, and exercises that train hip abduction, such as machine hip abductions.

Origin: The gluteus maximus, medius, and minimus originate on the ilium.

Insertion: The gluteus maximus and gluteus minimus insert to the iliotibial tract (IT band) and the gluteal tuberosity on the femur. The gluteus medius inserts to the greater trochanter on the femur.

Figure 4: Gluteals Anatomy
(Image by [Beth Ohara](#))

Pectoralis: There are two pectoralis muscles (pecs for short) located on your chest: the pectoralis major and the pectoralis minor. The pectoralis major can be divided into two heads: the clavicular head or “upper chest” (which originates at the clavicle) and the sternal head or “lower chest” (which originates at the sternum). The pecs act to adduct the upper arm (bring the upper arm across the body), and to internally rotate the shoulder joint. The clavicular fibers also aid in shoulder flexion (raising your upper arm up), but the sternal fibers do not.

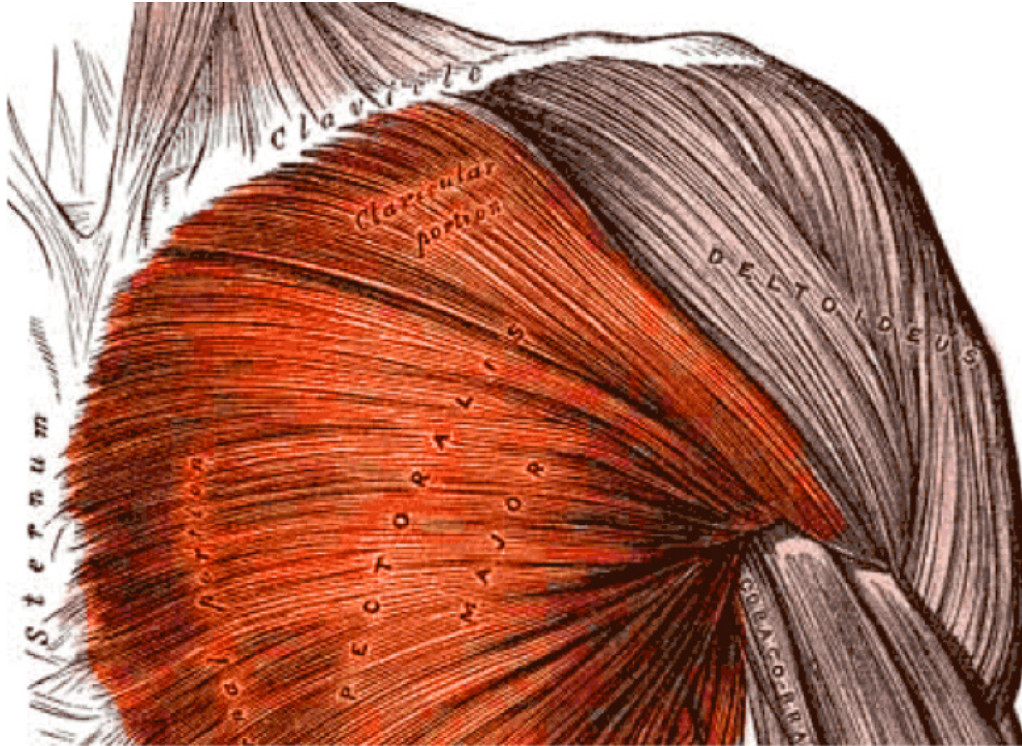


Figure 5: Pectoral Anatomy

Origin: The pectoralis major originates on the sternum and clavicle. The pectoralis minor originates on the 3rd-5th ribs.

Insertion: The pectoralis major inserts on the humerus. The pectoralis minor inserts to the coracoid process (front of your shoulder).

Back: The back is comprised of a massive web of muscles, so for the sake of simplicity we will only look at the largest back muscles. The latissimus dorsi (lats for short) is a big muscle which runs from just underneath your arm pit all the way down to the bottom of your back. The lats primarily act to extend the shoulder (bring your upper arm downward) and adduct the shoulder (moving your elbows towards your mid back).

The trapezius (traps for short), is another large muscle running from the base of the skull down to the middle of your inner back. When people think about the traps, they tend to only think of the upper fibers, but the middle and lower fibers take up a very large surface area as well. The traps act to elevate the scapulae (shrugging your shoulders), retract the scapulae (pull the shoulder blades back), and extend the shoulder (pull your arms backward when your elbows are raised).

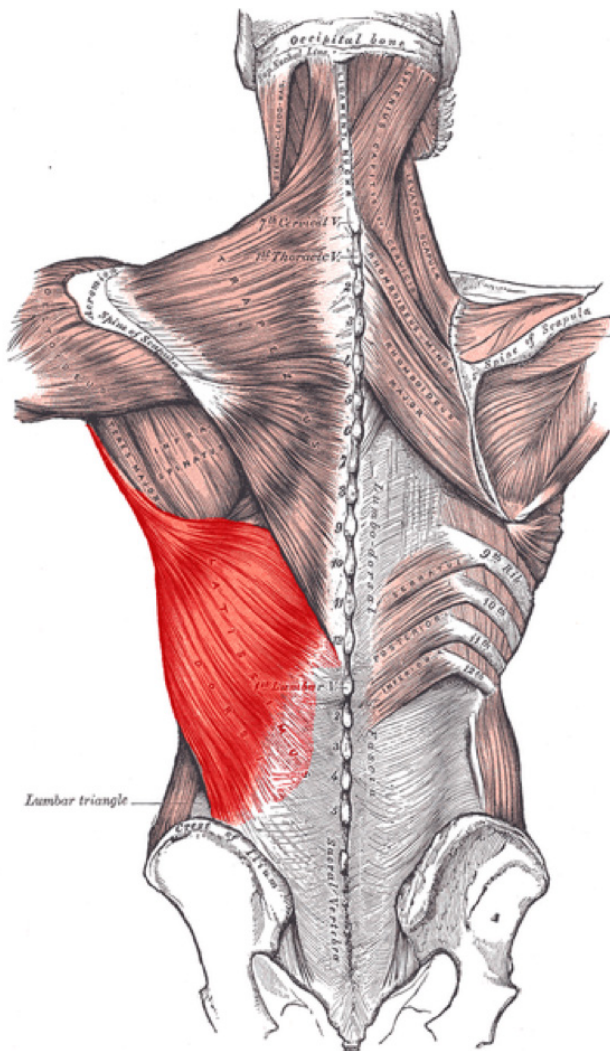


Figure 6: Latissimus Dorsi Anatomy

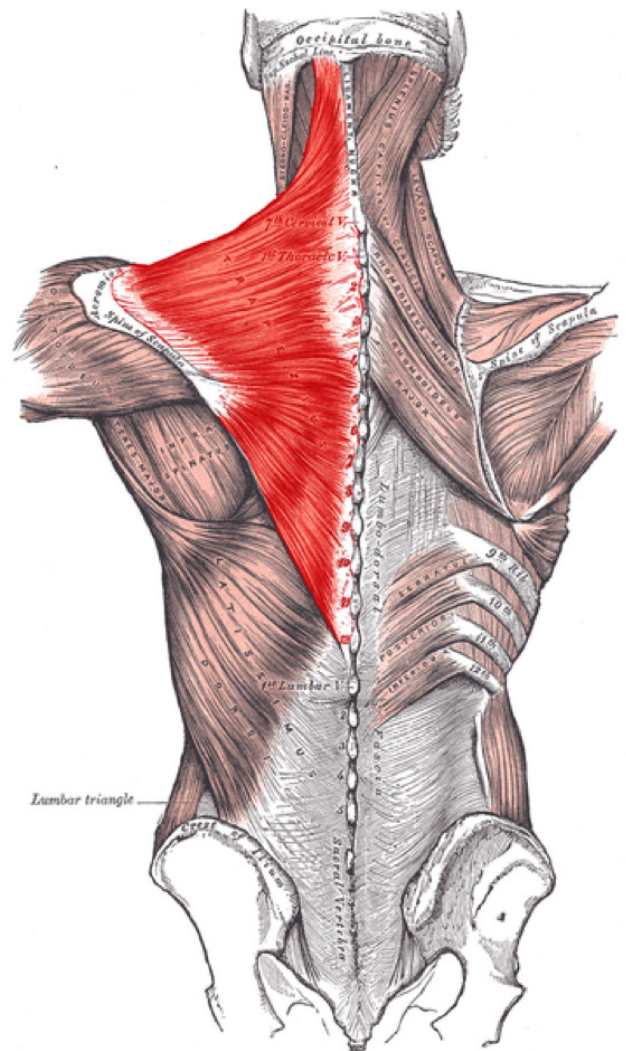


Figure 7: Trapezius Anatomy

LATS:

Origin: Iliac crest and thoracolumbar fascia

Insertion: Humerus

TRAPS:

Origin: Occipital bone (upper traps), corresponding supraspinous ligaments for the mid and lower traps

Insertion: nuchal ligament

Biceps: The biceps brachii are a two-headed muscle containing a long head and a short head. They collectively act to flex the elbows (bring the elbow from a straightened position to a bent position), and supinate the wrist (twist the pinky upwards). The brachialis, which runs underneath the biceps brachii, is also a strong elbow flexor.

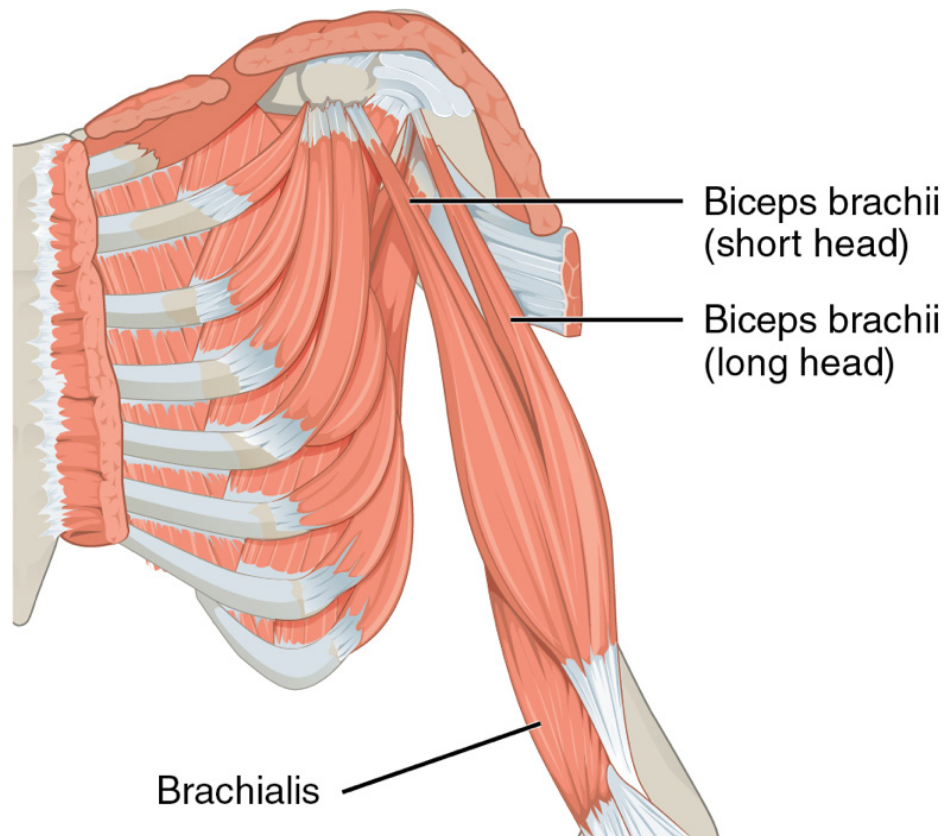


Figure 8: Biceps Anatomy (Image by [CFCE](#))

Origin: coracoid process, supraglenoid tubercle

Insertion: Radial tuberosity

Triceps: The triceps lie on the back of your upper arm and are made up of three heads: a long head, a medial head, and a lateral head. The triceps collectively act to extend the elbow (bring the elbows from a bent position to a straightened position).

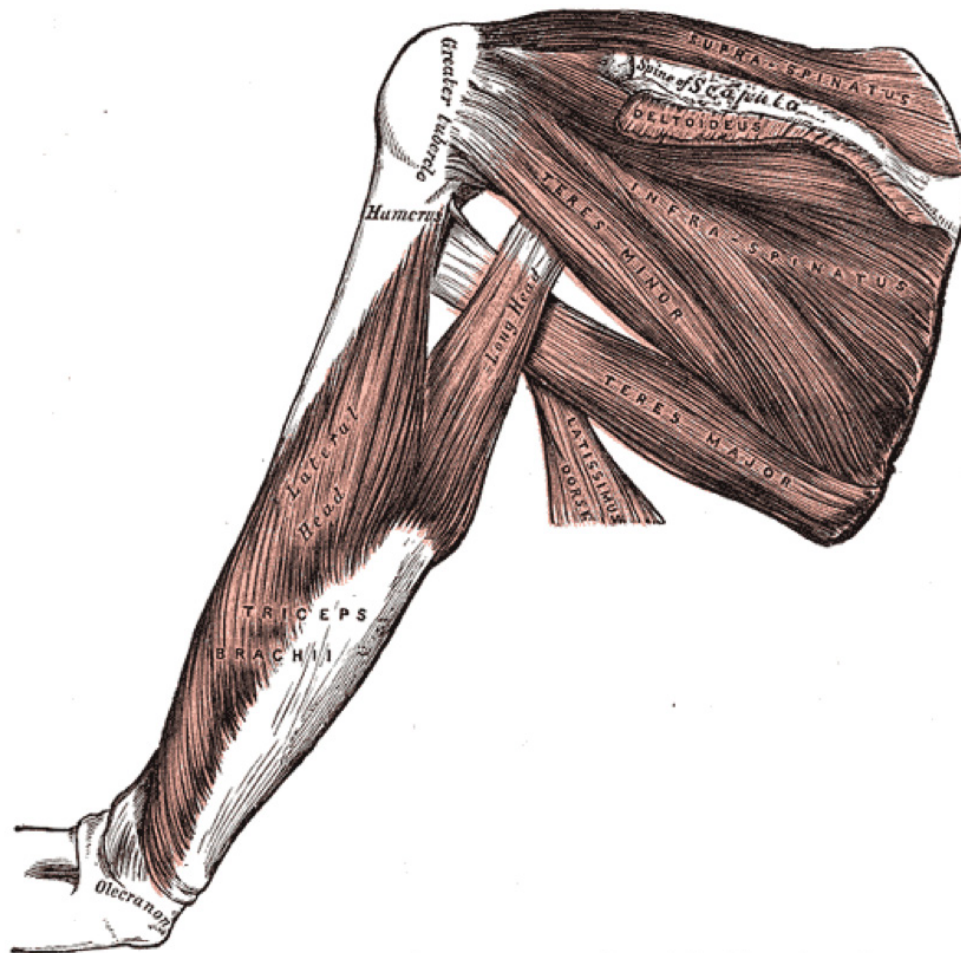


Figure 9: Triceps Anatomy

Origin: Infraglenoid tubercle, radial groove

Insertion: Olecranon process on ulna

Deltoids: The deltoids (or delts for short) are comprised of 3 different heads, the anterior deltoid (the “front” delt), the lateral deltoid (also known as the “middle” delt, and often mistakenly called the “medial delt”), and the posterior delt (also known as the “rear” delt). The anterior delt acts to flex the shoulder (raise the arm up), the lateral delt acts to abduct the upper arm (raise your upper arm out directly to your sides), and the posterior delt acts to abduct the shoulder (pull the shoulder back when the elbows are raised).

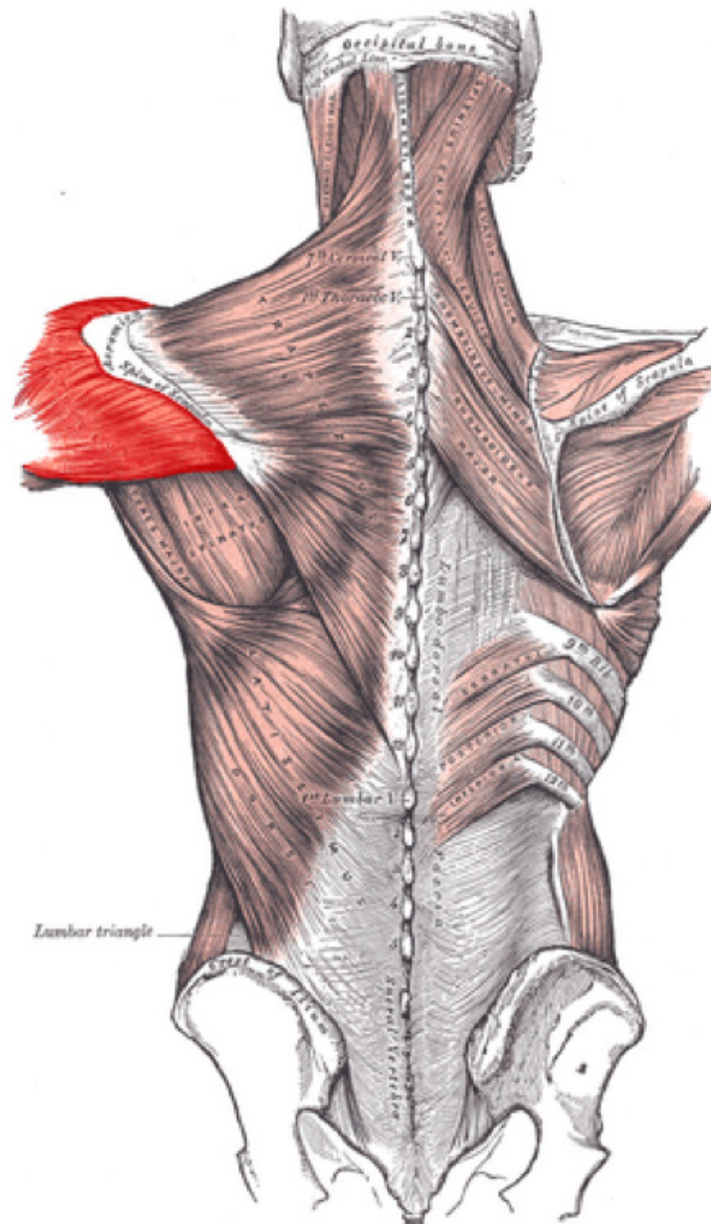


Figure 10: Deltoid Anatomy

Origin: Clavicle, acromion process, spine of scapula

Insertion: deltoid tuberosity of humerus

Abs: The abs are a huge web containing many muscles which all have a similar function. When talking about the abs, we are typically referring to the rectus abdominis – the “6-pack”. The rectus abdominis acts to flex the spine, rotate the torso, and resist spinal extension (prevent your lower back from arching inwards).

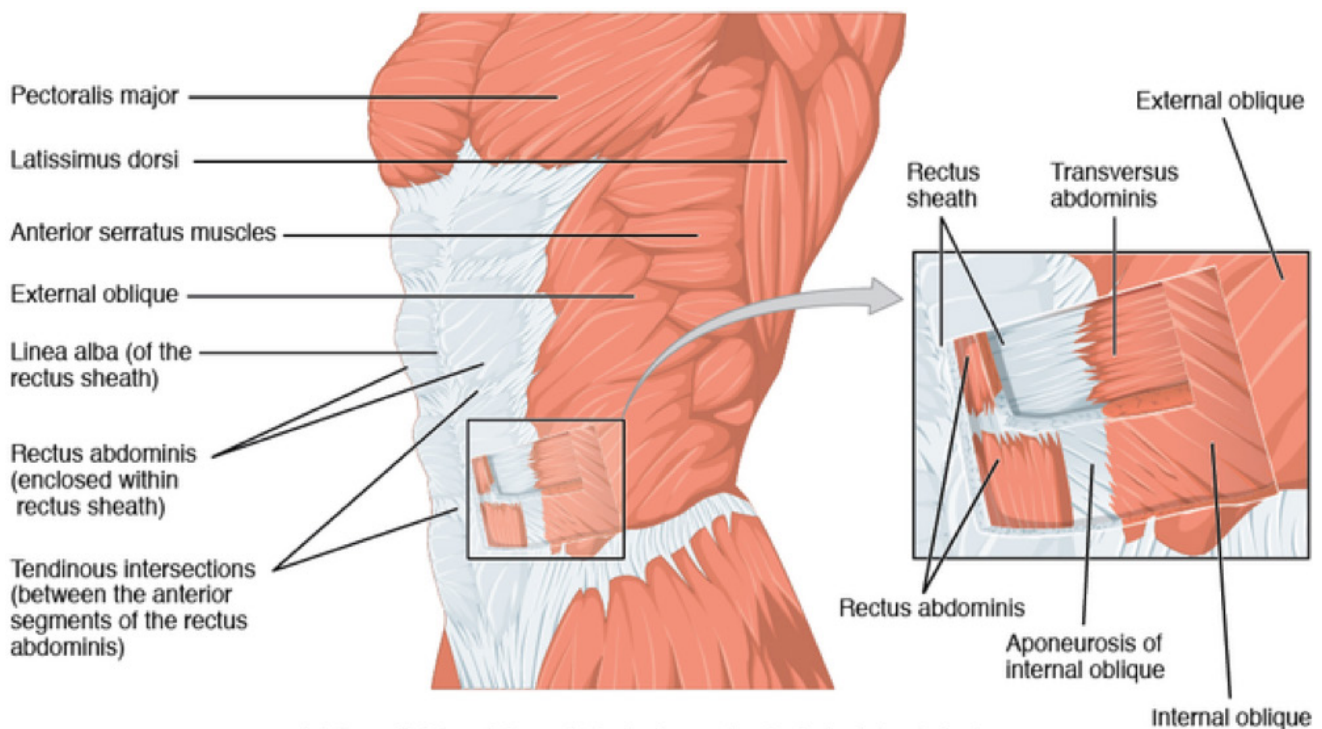


Figure 11: Abdominal Anatomy (Image by [CFCE](#))

Origin: Crest of pubis

Insertion: Xiphoid process



Calves: The calves are a complex consisting of two muscles – the gastrocnemius (or gastroc for short) and the soleus. The gastrocnemius is the big muscle underneath the back of your knee and the soleus is a smaller, flatter muscle which runs underneath the gastroc down to your ankle. Both the gastroc and soleus act to plantarflex the ankle (point your toes down). .

Origin: Lateral and medial condyle of femur

Insertion: tendo calcaneus

Figure 12: Anatomy of the Calf Muscles

JOINT ACTIONS

(Relevant to this program)

Lower body:

Hip extension: Bringing your hips inline with your body.

Hip flexion: Pushing your hips “back” away from your body’s midline.

Knee extension: Straightening your lower leg inline with your upper leg.

Knee flexion: Pulling your lower leg “behind” your upper leg.

Hip abduction: Pushing your knees “out” away from your body’s center line.

Hip adduction: Pulling your knees “in” towards your body’s center line.

Hip external rotation: Pushing your knees “out” without moving your upper leg.

Hip internal rotation: Pulling your knees “in” without moving your upper leg.

Posterior pelvic tilt: Pulling your hips “in” underneath you.

Anterior pelvic tilt: Popping your hips “out” and “back” behind you.

Plantar flexion: Pointing your toes down.

Dorsiflexion: Point your toes up.

Upper body:

Glenohumeral Joint

Shoulder flexion: Raising your upper arms straight up in front of you.

Shoulder extension: Pulling your upper arm behind your torso (from the front).

Shoulder adduction: Pulling your upper arm “down and in” from an overhead position.

Shoulder abduction: Raising your upper arm “up and out”.

Shoulder transverse adduction: Pushing your upper arm “in” across your chest.

Shoulder transverse extension: Pulling your upper arm “up and back”.

Shoulder internal rotation: Rotating your upper arm inward.

Shoulder external rotation: Rotating your upper arm outward.

Elbow joint

Elbow Flexion: Bending your forearm upward.

Elbow Extension: Straightening your forearm inline with your upper arm.

Wrist

Wrist Supination: Rotating your forearm such that your palms are facing “up”.

Wrist Pronation: Rotating your forearm such that your palms are facing “down”.

Scapula

Scapular Protraction: Rolling your upper back “forward”.

Scapular Retraction: Pulling your upper back “backward”.

Scapular Depression: Pushing your upper back “downward”.

Scapular Elevation: Shrugging your shoulders “upward”.

Spine

Lumbar flexion: Bending your spine “forward”.

Lumbar extension: Bending your spine “backward”.

Thoracic flexion: Hunching your upper back forward.

Thoracic extension: Pulling your upper back backward.

Rotation: Twisting your spine across your body.



CONTACT STEPHANIE

For customer support ONLY in regards to this training program, please email **StephanieButtermore@gmail.com**. Please only email me if you have training related questions. In regards to nutrition, I cannot answer questions beyond the scope of what I've already included in this program, as I am not a registered dietitian. Please reach out to an RD if you have nutrition questions.




As much as I love connecting with you on social media, I am not able to reliably respond to the questions received across platforms, so please direct any questions to the email above. Please allow for 3-5 business days for a reply.

Thank you so much for your support and happy training!

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